

AMENDMENT NO. 4_
to the
INTERCONNECTION AGREEMENT
between

NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY
d/b/a
BELL ATLANTIC – MAINE

and

DSLnet COMMUNICATIONS, LLC
d/b/a
DSLnet

This Amendment No. 4 is made this 9th day of June 2000, by and between New England Telephone and Telegraph Company, d/b/a Bell Atlantic – Maine, Inc. ("BA"), a New York corporation with offices at 185 Franklin Street, Boston, Massachusetts 02110, and DSLnet Communications, LLC d/b/a DSL.net a Delaware limited liability company with offices at 545 Long Wharf Drive, 5th Floor, New Haven, Connecticut, 06511 ("DSLnet"). (BA and DSLnet may be referred to individually as a "Party" and collectively as the "Parties").

WITNESSETH:

WHEREAS, BA and DSLnet are Parties to an Interconnection Agreement under Sections 251 and 252 of the Communications Act, dated July 12, 1999 (the "Interconnection Agreement"); and

WHEREAS, the Parties desire to amend that agreement as set forth herein;

NOW, THEREFORE, in consideration of the promises and mutual agreements set forth herein, the Parties agree to amend the Interconnection Agreement as follows:

1. Amendment to Interconnection Agreement. Effective as of the date first set forth above, the Interconnection Agreement is amended hereby as follows:

A) By inserting a new Section 1.36a] as follows:

“1.36a ‘Line Sharing’ is an arrangement by which BA facilitates DSLnet’s provision of ADSL (in accordance with T1.413), Splitterless ADSL (in accordance with T1.419), RADSL (in accordance with TR # 59), MVL (a proprietary technology), or any other xDSL technology that is presumed to be acceptable for shared line deployment in accordance with FCC rules, to a particular Customer location over an existing copper Loop that is being used simultaneously by BA to provide analog circuit-switched voice grade service to that Customer by making available to DSLnet, solely for DSLnet’s own use, the frequency range above the voice band on the same copper Loop required by DSLnet to provide such services. This Agreement addresses line sharing over loops that are entirely copper loops. The Parties do not intend anything in this Agreement to prejudice either DSLnet’s position that line sharing may occur on loops constructed of fiber optic cable, digital loop carrier electronics, and copper distribution cable or BA’s position that line sharing can only occur over copper loops or copper sub-loops.”

B) By inserting a new Section 9.1.7 as follows:

“9.1.7 To the extent required by Applicable Law, BA shall provide Line Sharing to DSLnet for DSLnet’s provision of ADSL (in accordance with T1.413), Splitterless ADSL (in accordance with T1.419), RADSL (in accordance with TR # 59), MVL (a proprietary technology), or any other xDSL technology that is presumed to be acceptable for shared line deployment in accordance with FCC rules, on the terms and conditions set forth herein. In order for a Loop to be eligible for Line Sharing, the following conditions must be satisfied for the duration of the Line Sharing arrangement: (i) the Loop must consist of a copper loop compatible with an xDSL service that is presumed to be acceptable for shared-line deployment in accordance with FCC rules; (ii) BA must be providing simultaneous circuit-switched analog voice grade service to the Customer served by the Loop in question; (iii) the BA Customer’s dial tone must originate from a Bell Atlantic End Office Switch in the Wire Center where the Line Sharing arrangement is being requested; and (iv) the xDSL technology to be deployed by the CLEC on that Loop must not significantly degrade the performance of other services provided on that Loop.

9.1.7.1 BA shall make Line Sharing available to DSLnet at the rates set forth in Exhibit A. These rates and/or rate structures shall be considered interim in nature until they have been approved by the Commission or otherwise allowed to go into effect as a result of a proceeding before the Commission, whether initiated by DSLnet or BA, in which DSLnet is offered an opportunity to serve discovery and cross examine witnesses on the methodology and assumptions supporting BA’s proposed rates and rate structures, including a tariff investigation, cost proceeding, arbitration or other evidentiary proceeding. If, as a result of any such proceeding, the Commission should approve (or otherwise allow to go into effect) permanent rates and/or rate structures different than those shown in Exhibit A, all such approved or effective permanent rates and/or rate structures shall supercede those shown in Exhibit A. The permanent rates shall be effective retroactively to June 9, 2000. The Parties shall true-up any amounts previously invoiced as if the permanent rates had been in effect as of that date. Each Party shall invoice the other for any amounts due to it as a result of such true-up, and all such invoices shall be paid in accordance with the Billing and Payment provisions of this Agreement. In addition to the

recurring and nonrecurring charges shown in Exhibit A for Line Sharing itself, the following rates shown in Exhibit A and in BA's applicable Tariffs are among those that may apply to a Line Sharing arrangement: (i) prequalification charges to determine whether a Loop is xDSL compatible (i.e., compatible with an xDSL service that is presumed to be acceptable for shared-line deployment in accordance with FCC rules); (ii) engineering query charges, engineering work order charges, or Loop conditioning (Digital Designed Loop) charges; (iii) charges associated with Collocation activities requested by DSLnet and not covered by Exhibit A; and (iv) misdirected dispatch charges, charges for installation or repair, manual intervention surcharges, and trouble isolation charges.

9.1.7.2 The following ordering procedures shall apply to Line Sharing:

(i) To determine whether a Loop qualifies for Line Sharing, the Loop must first be prequalified to determine if it is xDSL compatible. DSLnet must utilize the mechanized and manual Loop qualification processes described in the terms applicable to Digital Designed Loops, as referenced in paragraph (v) below, to make this determination.

(ii) DSLnet shall place orders for Line Sharing by delivering to BA a valid electronic transmittal service order or other mutually agreed upon type of service order. Such service order shall be provided in accordance with industry format and specifications or such format and specifications as may be agreed to by the Parties.

(iii) If the Loop is prequalified by DSLnet through the Loop prequalification database, and if a positive response is received and followed by receipt of DSLnet's valid, accurate and pre-qualified service order for Line Sharing, BA will return a FOC within twenty-four (24) hours (weekends and holidays excluded).

(iv) If the Loop requires qualification manually or through an Engineering Query, three (3) additional business days will be generally be required to obtain Loop qualification results before a FOC can be returned following receipt of DSLnet's valid, accurate request. BA may require additional time to complete the Engineering Query where there are poor record conditions, spikes in demand, or other unforeseen events.

(v) If conditioning is required to make a Loop capable of supporting Line Sharing and DSLnet orders such conditioning, then BA shall provide such conditioning in accordance with the terms of this Agreement pertaining to Digital Designed Loops; or if this Agreement does not contain provisions pertaining to Digital Designed Loops, then in accordance with BA's generally available rates, terms and conditions applicable to Digital Design Loops; provided, however, that BA shall not be obligated to provide Loop conditioning if BA establishes that such conditioning is likely to degrade significantly the voice-grade service being provided to BA's Customers over such Loops.

(vi) The standard Loop provisioning and installation process will be initiated for the Line Sharing arrangement only once the requested engineering and conditioning tasks

have been completed on the Loop. Scheduling changes and charges associated with order cancellations after conditioning work has been initiated are addressed in the terms pertaining to Digital Designed Loops, as referenced in paragraph (v) above. The provisioning interval for the Line Sharing arrangement initially shall be the standard interval of six (6) business days applicable to 2W ADSL Loops. No later than December 1, 2000, and quarterly thereafter, the Parties shall meet to discuss whether OSS improvements, greater operational experience, or other factors have been realized that should make it practicable for BA to reduce the standard Line Sharing interval. In no event shall the Line Sharing interval applied to DSLnet be longer than the interval applied to any affiliate of BA.

(vii) DSLnet must provide all required Collocation, CFA, SBN and NC/NCI information when a Line Sharing Arrangement is ordered. Collocation augments required, either at the POT Bay, Collocation node, or for splitter placement must be ordered using standard collocation applications and procedures, unless otherwise agreed to by the parties or specified in this agreement.

(viii) The Parties recognize that Line Sharing is a new offering by BA. The Parties will make reasonable efforts to coordinate their respective roles in the early phases of the roll out of Line Sharing in order to minimize provisioning problems and facility issues. DSLnet will provide reasonable, timely, and accurate forecasts of its Line Sharing requirements, including splitter placement elections and ordering preferences. These forecasts are in addition to projections provided for other stand-alone unbundled Loop types.

9.1.7.3 To the extent required by Applicable Law, DSLnet shall provide BA with information regarding the type of xDSL technology that it deploys on each shared Loop. Where any proposed change in technology is planned on a shared Loop, DSLnet must provide this information to BA in order for BA to update Loop records and anticipate effects that the change may have on the voice grade service and other Loops in the same or adjacent binder groups. As described more fully in Bell Atlantic Technical Reference 72575, the xDSL technology used by DSLnet for Line Share Arrangements shall operate within the Power Spectral Density (PSD) limits set forth in T1.413-1998 (ADSL), T1.419-2000 (Splitterless ADSL), or TR59-1999 (RADSL), and MVL (a proprietary technology) shall operate within the 0 to 4 kHz PSD limits of T1.413-1998 and within the transmit PSD limits of T1.601-1998 for frequencies above 4 kHz, provided that the MVL PSD associated with audible frequencies above 4 kHz shall be sufficiently attenuated to preclude significantly degrading voice services. DSLnet's deployment of additional Advanced Services shall be subject to the applicable rules and regulations of the FCC.

9.1.7.4 DSLnet may only access the high frequency portion of a Loop in a Line Sharing arrangement through an established Collocation arrangement at the BA Serving Wire Center that contains the End Office Switch through which voice grade service is provided to BA's Customer. DSLnet is responsible for providing a splitter at that Wire Center that complies with ANSI specification T1.413 through one of the splitter options described below.

DSLnet is also responsible for providing its own DSLAM equipment in the Collocation arrangement and any necessary CPE for the xDSL service it intends to provide (including CPE splitters, filters and/or other equipment necessary for the end user to receive separate voice and data services across the shared Loop). Two splitter configurations are available. In both configurations, the splitter must be provided by DSLnet and must satisfy the same NEBS requirements that BA imposes on its own splitter equipment or the splitter equipment of any BA affiliate. DSLnet must designate which splitter option it is choosing on the Collocation application or augment. Regardless of the option selected, the splitter arrangements must be installed before DSLnet submits an order for Line Sharing.

Splitter Option 1: Splitter in CLEC Collocation Area

In this configuration (option “A” in the New York collaborative), the DSLnet-provided splitter (ANSI T1.413 or MVL compliant) is provided, installed and maintained by DSLnet in its own Collocation space within the Customer’s serving End Office. The BA-provided dial tone is routed through the splitter in the CLEC Collocation area. Any rearrangements will be the responsibility of DSLnet.

Splitter Option 2: Splitter in Bell Atlantic Area

In this configuration (option “C” in the New York collaborative), BA inventories and maintains a DSLnet-provided splitter (ANSI T1.413 or MVL compliant) in BA space within the Customer’s serving End Office. At DSLnet’s option, installation of the splitter may be performed by BA or by a BA-approved vendor designated by DSLnet. The splitter is installed (mounted) in a relay rack between the POT Bay and the MDF, and the demarcation point is at the splitter end of the cable connecting the CLEC Collocation and the splitter. BA will control the splitter and will direct any required activity. BA will perform all POT (Point of Termination) Bay work required in this configuration. BA will provide a splitter inventory to DSLnet upon completion of the required augment.

(i) Where a new splitter is to be installed as part of an initial Collocation implementation, the splitter installation may be ordered as part of the initial Collocation application. Associated Collocation charges (application and engineering fees) apply. DSLnet must submit a new Collocation application, with the application fee, to BA detailing its request. Standard Collocation intervals will apply.

(ii) Where a new splitter is to be installed as part of an existing Collocation arrangement, or where the existing Collocation arrangement is to be augmented (e.g., with additional terminations at the POT Bay), the splitter installation or augment may be ordered via an application for Collocation augment. Associated Collocation charges (application and engineering fees) apply. DSLnet must submit the application for Collocation augment, with the application fee, to BA. An interval of seventy-six (76) business days shall apply.

9.1.7.5 DSLnet will have the following options for testing shared Loops:

9.1.7.5.1 Under Splitter Option 1, DSLnet may conduct its own physical tests of the shared Loop from DSLnet's collocation area. If it chooses to do so, DSLnet may supply and install a test head to facilitate such physical tests, provided that: (i) the test head satisfies the same NEBS requirements that BA imposes on its own test head equipment or the test head equipment of any BA affiliate; and (ii) the test head does not interrupt the voice circuit to any greater degree than a conventional MLT test. Specifically, the DSLnet-provided test equipment may not interrupt an in-progress voice connection and must automatically restore any circuits tested in intervals comparable to MLT. This optional DSLnet-provided test head would be installed between the "line" port of the splitter and the POT bay in order to conduct remote physical tests of the shared loop.

9.1.7.5.2 Under Splitter Option 2, either BA or a BA-approved vendor selected by DSLnet may install a DSLnet-provided test head to enable DSLnet to conduct remote physical tests of the shared Loop. This optional DSLnet-provided test head may be installed at a point between the "line" port of the splitter and the BA-provided test head that is used by BA to conduct its own Loop testing. The DSLnet-provided test head must satisfy the same NEBS requirements that BA imposes on its own test head equipment or the test head equipment of any BA affiliate, and may not interrupt the voice circuit to any greater degree than a conventional MLT test. Specifically, the DSLnet-provided test equipment may not interrupt an in-progress voice connection and must automatically restore any circuits tested in intervals comparable to MLT. BA will inventory, control and maintain the DSLnet-provided test head, and will direct all required activity.

9.1.7.5.3 Under either Splitter Option, if BA has installed its own test head, BA will conduct tests of the shared Loop using a BA-provided test head, and, upon request, will provide these test results to DSLnet during normal trouble isolation procedures in accordance with reasonable procedures.

9.1.7.5.4 Under either Splitter Option, BA will make MLT access available to DSLnet via RETAS after the service order has been completed. DSLnet will utilize the circuit number to initiate a test. This functionality will be available on July 31, 2000.

9.1.7.5.5 The Parties will continue to work cooperatively on testing procedures. To this end, in situations where DSLnet has attempted to use one or more of the foregoing testing options but is still unable to resolve the error or trouble on the shared Loop, BA and DSLnet will each dispatch a technician to an agreed-upon point at the Main Distribution Frame (or in exceptional cases to an agreed upon site in the field) to conduct a joint meet test to identify and resolve the error or trouble. BA may assess a charge for a misdirected dispatch only if the error or trouble is determined to be one that DSLnet should reasonably have been able to isolate and diagnose through one of the testing options available to DSLnet above. The Parties will mutually agree upon the specific procedures for conducting joint meet tests.

9.1.7.6 BA and DSLnet each have a joint responsibility to educate its Customer regarding which service provider should be called for problems with their respective

voice or advanced service offerings. BA will retain primary responsibility for voice band trouble tickets, including repairing analog voice grade services and the physical line between the NID at the Customer premise and the point of demarcation in the central office. DSLnet will be responsible for repairing advanced data services it offers over the Line Sharing arrangement. Each Party will be responsible for maintaining its own equipment. Before either Party initiates any activity on a new shared Loop that may cause a disruption of the voice or data service of the other Party's Customer, that Party shall first make a good faith effort to notify the other Party of the possibility of a service disruption. BA and DSLnet will work together to address Customer initiated repair requests and to prevent adverse impacts to the Customer.

9.1.7.6.1 When BA provides inside wire maintenance services to the Customer, BA will only be responsible for testing and repairing the inside wire for voice-grade services. BA will not test, dispatch a technician, repair, or upgrade inside wire to clear trouble calls associated with DSLnet's advanced services. BA will not repair any CPE equipment provided by DSLnet. Before a trouble ticket is issued to BA, DSLnet shall validate whether the BA Customer is experiencing a trouble that arises from DSLnet's advanced service. If the problem reported is isolated to the analog voice-grade service provided by BA, a trouble ticket may be issued to BA.

9.1.7.6.2 In the case of a trouble reported by the Customer on its voice-grade service, if BA determines the reported trouble arises from DSLnet's advanced services equipment, splitter problems, or DSLnet's activities, BA will:

- a) Notify DSLnet and request that DSLnet immediately test the trouble on DSLnet's advanced service.
- b) If the Customer's voice grade service is so degraded that the Customer cannot originate or receive voice grade calls, and DSLnet has not cleared its trouble within a reasonable time frame, BA may take unilateral steps to temporarily restore the Customer's voice grade service if BA determines in good faith that the cause of the voice interruption is DSLnet's data service.
- c) Upon completion of steps (a) and (b) above, BA may temporarily remove the DSLnet-provided splitter from the Customer's Loop and switch port if BA determines in good faith that the cause of the voice interruption is DSLnet's data service.
- d) Upon notification from DSLnet that the malfunction in DSLnet's advanced service has been cleared, BA will restore DSLnet's advanced service by restoring the splitter on the Customer's Loop.
- e) Upon completion of the above steps, DSLnet will be charged a Trouble Isolation Charge (TIC) to recover BA's costs of isolating and temporarily removing the malfunctioning advanced service from the Customer's line if the cause of the voice interruption was DSLnet's data service.

- f) BA shall not be liable for damages of any kind for temporary disruptions to DSLnet's data service that are the result of the above steps taken in good faith to restore the end user's voice-grade POTS service, and the indemnification provisions set forth in Section 25 shall control in such instances."

C) By adding the following language immediately after 25.2 of the Interconnection Agreement:

"25.3 Notwithstanding any other provision of this Agreement, with respect to BA's provision of Line Sharing to DSLnet hereunder, each Party shall release, indemnify, defend and hold harmless the other Party for any Loss suffered, made, instituted, or asserted by the other Party's Customer(s) that arise from disruptions to that Customer's service or from any violation of Applicable Law governing the privacy of the Customer's communications, and that are proximately caused by the grossly negligent or willful acts or omissions of the indemnifying Party in connection with a Line Sharing arrangement."

D) By revising Exhibit A of the Interconnection Agreement to reflect the additional rates contained in Exhibit A of this Amendment.

2. Conflict between this Amendment and the Interconnection Agreement. This Amendment shall be deemed to revise the terms and provisions of the Interconnection Agreement to the extent necessary to give effect to the terms and provisions of this Amendment. In the event of a conflict between the terms and provisions of this Amendment and the terms and provisions of the Interconnection Agreement, this Amendment shall govern, *provided, however*, that the fact that a term or provision appears in this Amendment but not in the Interconnection Agreement, or in the Interconnection Agreement but not in this Amendment, shall not be interpreted as, or deemed grounds for finding, a conflict for purposes of this Section 2.

3. Counterparts. This Amendment may be executed in one or more counterparts, each of which when so executed and delivered shall be an original and all of which together shall constitute one and the same instrument.

4. Captions. The Parties acknowledge that the captions in this Amendment have been inserted solely for convenience of reference and in no way define or limit the scope or substance of any term or provision of this Amendment.

5. Scope of Amendment. This Amendment shall amend, modify and revise the Interconnection Agreement only to the extent set forth expressly in Section 1 of this Amendment, and, except to the extent set forth in Section 1 of this Amendment, the terms and provisions of the Interconnection Agreement shall remain in full force and effect after the date first set forth above.

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment to be duly executed and delivered by their duly authorized representatives as of the date first set forth above.

DSLnet COMMUNICATIONS
LLC d/b/a DSLnet

BELL ATLANTIC -MAINE

By:_____

By:_____

Printed:_____

Printed: Jeffrey A. Masoner

Title:_____

Title: Vice-President - Interconnection Services
Policy & Planning